

1ST AND 2ND COPIES

8M

KHUCHBAKOV (X. P.) & RAKNITZYNA (Mina E. A.). Применение микро-
литических бактерий путем бактериализации семян при проращивании.
[The use of mycolytic bacteria for the inoculation of seed during
vernalization.]—Bull. Acad. Sci. U.R.S.S., 1939, 84r. biol., 1,
pp. 117-120, 1939.

The use of mycolytic bacteria for the prevention of fungous infection
during vernalization of cereal seed-grain was demonstrated in pot
experiments with spring wheat Caesium 0111 and *Fusarium grami-
nearum* [*Gibberella subnervii*]. The grain yields of plants grown from
seed soaked for 24 hours in a liquid culture of mycolytic bacteria F-80,
in a water suspension of *G. subnervii*, or in a mixture of the suspension
of the fungus with the bacterial culture or a filtrate of it was 120.6,
26.9, 128.6, and 115.5 per cent., respectively, compared with 100 per
cent. in the control plants raised from seed soaked in water. Similar
results were obtained with the bacterial isolation F-24, but it reduced
the yield of straw below that of the control. In inoculation experiments
made in many replications seed-grain treated with mycolytic bacteria,
particularly F-80, was not attacked by *G. subnervii*, while that left
untreated invariably became infected and perished soon after germina-
tion.

ASAC-114 METALLURGICAL LITERATURE CLASSIFICATION

FROM BOWING

551137 ONY 251

16

CA

THE EFFECT OF MICROORGANISMS ON SOIL COLLOIDS. Va. P. Khudyakov, *Pedology* (U. S. S. R.) 1943, No. 7, 48-51 (in English, 55). -Kh. points out that gels may prevent the penetration of microbes into the soil and reduce their effective sphere of action. By using U tubes filled with soil and sterilized it is possible to follow the course of penetration of microbes. To one arm of the U tube a tube of peptone bullion sealed at one end is attached; a culture of microbes is introduced in the other arm. The turbidity of the bullion medium shows when the microbes reach the end of the other arm of the U tube. Other methods are also described. Using various gels, Kh. found that the soil at times becomes impermeable to bacteria. With the U tube arrangement he found that it took *B. prodigiosum* 2 days to penetrate a soil when it was ignited, 7 days when lime was added to the soil, and 12 days when kaolin was added. The adsorption of bacteria by soil colloids may reduce their penetration, but cannot prevent it. There seem to be bacteria that are capable of breaking down the organo-mineral gels. These open the way for other microbes to penetrate the soil. J. S. Joffe

ASB-51A DETAILING LITERATURE CLASSIFICATION

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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Pure cultures of mycorrhizal fungi. Ya. P. Khudyakov and Yu. M. Voznyakovskaya (All-Soviet Inst. Agr. Microbiol., Moscow). *Mikrobiologiya* 20, 13-19(1951). —Amino-heterotrophic growth was observed in pure cultures of mycorrhiza from fruiting cells of *Boletus edulis*, *B. luteus*, *B. juridus*, and *B. variegatus*; also from hyphae found on oak rootlets. Casein hydrolyzate supplies the essential amino acids. Addn. of folic acid, Ca pantothenate, *p*-aminobenzoic acid, and several B vitamins in culture tests did not reveal any vitamin requirement. Several aspects of growth behavior common to hymenomycetes were observed.

Julian F. Smith

KHODYAKOV, Ya.P.

**Control of epiphytic microflora. Dokl.AN SSSR 93 no.5:907-909 D '53.
(MLRA 6:12)**

**1. Predstavleno akademikom A.I.Oparinym.
(Wheat--Diseases and pests) (Microorganisms)**

FD 301

USSR/Biology

Card 1/1

Author : Khudyakov, Ya. P.

Title : The contemporary status and the problems of soil microbiology

Periodical : Mikrobiologiya, 23, 331-348, May/Jun 1954

Abstract : According to a footnote, this article was published to promote discussion of the contemporary status and the problems of soil microbiology. The article discusses the historical development of soil microbiology in the USSR; the effects of crop rotation of the activity of the soil; the disparity between microbiological reactions of the soil and plants which occur in culture media, and those occurring naturally in the soil; the activity and effectiveness of various organic, mineral, and bacterial fertilizers used alone and in combination; controlling the general biological activity of the soil; and the inter-relationships which exist between the various bacteria inhabiting the soil and the root systems of plants.

Institution : The Moscow Department of the All-Union Scientific-Research Institute of Agricultural Microbiology

Submitted : January 22, 1954

KHODYAKOV, Ya.P.

Pulse of the soil. Znan. sila no.5:19-21 My '55. (MLRA 8:6)
(Soils--Bacteriology)

KHODYAKOV, Ya.P.

Kyrylo Ivanovych Rudakov; obituary. Mikrobiol. zhur. 18 no.3:70-71
'56. (MLRA 9:10)

(RUDAKOV, KYRYLO INVANOVICH, 1903-1956)

KHUDYAKOV, #2
USSR Microbiology. Soil Microbiology.

F-3

Abs Jour: Referat. Zh.-Biol., No. 9, 1957, 35612

Author : Khudiakov, Ia., Voziakovskaia, Iu. M.

Title : The Microflora of Wheat Roots and Several of
its Properties

Orig Pub: Mikrobiologiya, 1956, 25, No. 2, 184-190

Abstract: A study was made of the specific composition of the microflora living on the roots of winter wheat washed out of the soil in the phase of milling ripeness or with ears. The microflora of the wheat roots was represented by 41 species, and contained representatives of the genera, Pseudomonas, Bacterium, Mycobacterium, Chromobacterium; 25 species of micro-organisms live not only on the roots but also on the above-ground parts of the plant, i.e., they are

Card 1/2

*Moscow Dept, AV Sci Res Inst Agricultural
Microbiology*

KHUDYAKOV, Ya.P., kand.biol.nauk (Moskva); KOZLOV, I.V., kand.biol.nauk
(Moskva)

Epiphytic micro-organisms in the control of mildew in grapes.
Zashch. rast. ot vred. i bol. 3 no.4:22-23 J1-Ag '58. (MIRA 11:9)
(Grapes--Diseases and pests) (Mildew) (Epiphytes)

KHUDYAKOV, Ya.P.

Periodicity of microbiological processes in the soil. Trudy Inst.
mikrobiol. no.5:150-160 '58 (MIRA 11:6)

1. Moskovskoye otdeleniye Vsesoyuznogo instituta sel'skokhozyaystven-
noy mikrobiologii.

(SOIL, microbiology.

periodicity of microbiol. processes (Rus))

(MICROORGANISMS,

in soil, periodicity of microbial processes (Rus))

~~KHUDYAKOV, Y.N.P.~~

"Soil microbiology" by D.M.Novogradskii. Reviewed by I.A.P.Khudinikov.
Mikrobiologiya 27 no.1:133-134 Ja-F '58. (MIRA 11:4)
(SOIL MICRO-ORGANISMS)

BEREZOVA, Ye.; BORODULINA, Yu.; BUSHUYEVA, P.; GEL'TSER, F.; GOLIKOV, V.;
DOROSINSKIY, L.; KOZLOVA, N.; KRAKHIN, P.; KRUGLOV, N.; LAZAREV, N.;
LAMPOVSHCHIKOV, P.; MAKAROVA, M.; MARKOVA, Z.; NESTEROVA, Ye.;
PROKHOROV, M.; SOROKINA, T.; STARYGINA, L.; KHUDYAKOV, Ya.

Ivan Il'ich Samoilov; obituary. Mikrobiologiya 28 no.2:318-
'319 Mr-Apr '59. (MIRA 12:5)

(SAMOILOV, IL'IA IL'ICH, 1900-1958)

KHODYAKOV, I. P.

Biological principles of cultivating subsoil horizons of Podzols.
Trudy Inst. mikrobiol. no.7:18-33 '60. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'skokhozyay-
stvennoy mikrobiologii Vsesoyuznoy akademii sel'skokhozyaystvennykh
nauk imeni Lenina.

(PODZOL)

(TILLAGE)

VOZNYAKOVSKAYA, Yu.M.; KHUDIYAKOV, Ya.P.

Species composition of the epiphytic microflora of living plants.
Mikrobiologiya 29 no.1:97-103 Ja-F '60. (MIRA 13:5)

1. Vsesoyuznyy institut sel'skokhozyaystvennoy mikrobiologii,
Leningrad.

(PLANTS microbiol.)

KHUDYAKOV, Ya.P.; SHKLYAR, M.S.; SAVADEROV, Ye.P.

Antifungin antibiotic produced by bacteria of the genus
Pseudomonas. Prikl. biokhim. i mikrobiol. 1 no.2:186-190
Mr-Apr '65. (MIRA 18:11)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sel'-
skokhozyaystvennoy mikrobiologii.

KHODYAKOV, Ye.

University training of news photographers. Sov. foto 23 no.6:
20-21 Je '63. (MIRA 16:7)

1. Dekan fakul'teta zhurnalistiki Moskovskogo gosudarstvennogo
universiteta.

(Photography, Journalistic)

L 04303-67 EWT(1)/T-2 FDN/WW

ACC NR: AP6005388

(N)

SOURCE CODE: UR/0413/66/000/001/0139/0139

AUTHORS: Reka, Ya. D.; Khudyakov, Ye. D.; Chernobay, I. F.; Fenkel'shteyn, L. A.; Kultygin, N. S.; Lavrenyuk, N. A.

ORG: none

TITLE: A ²³pneumatic drive direct-action pump pressure booster. Class 59, No. 177772 /announced by Donets State Design-Construction and Experimental Institute of the Complex Mechanization of Mines (Donetskiy gosudarstvennyy proyektno-konstruktorskiy i eksperimental'nyy institut kompleksnoy mekhanizatsii shakht)]

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1966, 139

TOPIC TAGS: water pump, high pressure pump, high pressure pneumatic device, hydraulic pressure amplifier

ABSTRACT: This Author Certificate presents a pneumatic drive direct-action double acting pump pressure booster. The device includes a pneumatic cylinder with a piston, two operating cylinders with pistons rigidly connected with the piston of the pneumatic cylinder, and a distributing valve which is repositioned with the aid of checking devices when the piston approaches the extreme piston (see Fig. 1). The design increases the lifetime of the pump. The piston of the pneumatic cylinder is equipped at its ends with blades for rotating the piston to a specified angle

Card 1/2

UDC: 621.651.002.54

L 04303-67

ACC NR: AP6005388

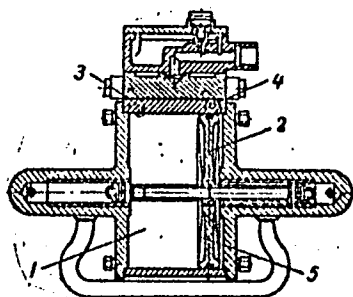


Fig. 1. 1 - pneumatic
cylinder; 2 - piston;
3 and 4 - checking
devices; 5 - blades

with each stroke. Orig. art. has: 1 figure.

SUB CODE: 13/

SUBM DATE: 18Jan64

Card 2/2 *gl*

GERTSBERG, V.; KHUDYAKOV, Yu.; GOLIK, V.; ANUFRIYEV, P., inzh.;
KULAGINA, T., inzh.

A trial check of a suggestion. Sots. trud 8 no.2:115-121
F '63. (MIRA 16:2)

1. Nachal'nik byuro normirovaniya Ural'skogo zavoda tyazhelogo mashinostroyeniya (for Gertsberg). 2. Nachal'nik byuro truda i ekonomiki obrubnogo tsekha Ural'skogo zavoda tyazhelogo mashinostroyeniya (for Khudyakov). 3. Starshiy inzhener otдела organizatsii truda i zarabotnoy platy kombinata Kemerovoshakhtokhimstroy (for Golik). 4. Otdel organizatsii truda i zarabotnoy platy kombinata Kemerovoshakhtokhimstroy (for Anufriyev). 5. Otdel truda i kadrov Upravleniya derevoobrabatyvayushchey i bumazhnoy promyshlennosti Sverdlovskogo soveta narodnogo khozyaystva (for Kulagina).

(Sverdlovsk--Wages--Machinery industry workers)

(Kemerovo--Wages--Mining engineering)

(Sverdlovsk--Wages--Furniture industry)

5(3)

SOV/62-59-5-36/40

AUTHORS:

Puzitskiy, K. V., Eydus, Ya. T., Khudyakov, Yu. T.

TITLE:

On the Development of the Reaction of the Hydrogen-condensation of Carbon Monoxide With Ethylene Under a Pressure of 10 at
(O protekanii reaktsii gidrokondensatsii okisi ugleroda s etilenom pod davleniyem 10 atm)

PERIODICAL:

Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, 1959, Nr 5, pp 945 - 947 (USSR)

ABSTRACT:

The hydrogen-condensation of carbon monoxide with ethylene mentioned in the title has hitherto been investigated only under atmospheric pressure. In this case it was carried out at a pressure of 10 at. A metal velocity modulation tube was used as reactor in this investigation, which was built into a catalyzing furnace with automatic temperature control. The usual cobalt-clay (1:2) catalyst was used. The outflowing gas volume was rheometrically measured. The experiments were carried out at 190°. All other investigation conditions differed in no way from those of references 1,2. For comparison, the investigations were carried out also under atmospheric pressure. The following was determined: the yield of heavy (H) and light (L) olefins in ml/mm³ H+L and H+L+G (G= gaseous olefins) at various mixing

Card 1/2

On the Development of the Reaction of the Hydrogen- SOV/62-59-5-36/40
condensation of Carbon Monoxide With Ethylene Under a Pressure of 10 at

ratios $\text{CO} + \text{C}_2\text{H}_4:\text{H}$. CO was varied from 0.3-6.9%, $\text{C}_2\text{H}_4:\text{H} \sim 3$.
The throughput was 100 hours⁻¹. From the data obtained
(Tables 1-2) it was found that the total olefin yield is only half
of that obtained under atmospheric pressure. P=1 at: H+L=
=290 ml/mm³, H+G+L= 525 ml/mm³. P= 10at:H+L= 190 ml/mm³ H+L+G=
= 250 ml/mm³. With an increase of the carbon monoxide content
from 0.3 to 6.4% the yield of heavy olefins compared to light
olefins increased, while the gaseous ones decreased considerably.
The total yield increased. The same development was found also
in the case of experiments carried out at pressures of less
than 10 at. Herefrom the authors drew the conclusion that with
increasing CO-content in the initial mixture the degree of poly-
merization of the obtained product increases. There are 2 tables
and 5 Soviet references.

ASSOCIATION: Institut organicheskoy khimii im. N. D. Zelinskogo Akademii nauk
SSSR (Institute of Organic Chemistry imeni N. D. Zelinskiy of
the Academy of Sciences, USSR)

SUBMITTED: November 12, 1958
Card 2/2

BULANOVA, T.F.; EYDUS, Ya.T.; SERGEYEVA, N.S.; KHUDYAKOV, Yu.T.

Directed catalytic synthesis of solid paraffins from carbon
monoxide and hydrogen. Dokl. AN SSSR 153 no.1:101-103 N '63.
(MIRA 17:1)

1. Institut organicheskoy khimii im. N.D. Zelinskogo AN
SSSR. Predstavleno akademikom B.A. Kazanskim.

KHUDYAKOV, Zinovy Ivanovich; KRAYZ, A.G., nauchn. red.;
KOBINSKAYA, M.V., red.

[Transformer repair electrician] Elektroslesar' po re-
montu transformatorov. Moskva, Vysshaya shkola, 1964.
270 p. (MIRA 17:5)

S/065/60/000/004/006/017
E071/E435

AUTHORS: Levchenko, D.N., Khudyakova, A.D., Kalitayeva, A.L.
Shkiyaruk, Ye.A., Khokhlov, V.I. and Chugreyeva, A.S.

TITLE: Non-Ionogenic Surface-Active Substances 1 -
De-Emulsifying Agents for Petroleum Emulsions

PERIODICAL: Khimiya i tekhnologiya topliv i masel, 1960, No.4,
pp.24-29

TEXT: Results of synthesis and testing of non-ionogenic surface-active substances (de-emulsifying agents) from fractions of alkylphenols, obtained as a by-product in the production of an antioxidant additive 2,6-ditertiarybutylparacresol (DBPK) are given. As a starting material for the synthesis monoalkylcresol fraction (126 to 142°C at 20 mm Hg) and residue from the production of DBPK and their mixtures and oxyethylene were taken. The experimental procedure is described in some detail. Specimens of alkylene glycols obtained were tested on petroleum emulsions as de-emulsifying agents and surface tensions of their aqueous solutions of various concentrations were tested (Fig.1). By varying the duration of oxyethylation process products containing various numbers of oxyethylene groups were obtained. It was found

Card 1/2

S/065/60/000/004/006/017
E071/E435

Non-Ionogenic Surface-Active Substances - De-Emulsifying Agents
for Petroleum Emulsions

that compounds containing less than 10 groups of oxyethylene were not completely soluble in water, while compounds containing larger proportions of these groups were well soluble. The surface tension of compounds containing from 14 to 32 groups varied little, particularly at low concentrations. With increasing number of groups up to 40 and above, the surface active properties of the compounds deteriorate. The best results were obtained with substances containing between 25 to 30 of oxyethylene groups. The latter type of compounds was named VNII NP-58. Its de-emulsifying activity was compared with other reagents used at present in the petroleum industry (table) and was found to be superior to that of other reagents. The consumption of this agent for the de-emulsification of Bashkirian crudes amounts to 0.005 - 0.01% and on thermochemical desalting of the Romashk crude - 0.03%. It is concluded that oxyethylation of by-products obtained during the production of DBPK should be introduced into the industry. There are 2 figures, 1 table and 6 Soviet references. ✓

ASSOCIATION: VNII NP

Card 2/2

LEVCHENKO, D.N.; NIKOLAYEVA, N.V.; KHUDYAKOVA, A.D.

Use of block copolymers of propylene and ethylene oxides for
the breaking of petroleum emulsions. Khim. i tekh. topl. i
masel 9 no.3:36-40 Mr'64 (MIRA 17:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po perera-
botke nefi i gazov i polucheniyu iskusstvennogo shidkogo
topliva.

LEVCHENKO, D.N.; KHUDYAKOVA, A.D.; GAVRILOVA, N.D.

Determination of nonionizing surface active substances in aqueous solutions. Zav. lab. 27 no. 4:408-409 '61. (MIRA 14:4)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut po pererabotke nefti i gaza i polucheniyu iskusstvennogo zhidkogo topliva.
(Surface active agents)

KHUDYAKOVA, A.I.

Agroclimatic conditions determining the planting time of potatoes
in the Far East. Trudy Dal'nevost. NIGMI no.12:94-105 '61.
(MIRA 14:12)

(Soviet Far East--Potatoes) (Planting time)

KINDYAKOVA, A.I.; TSUBERBILLER, Ye.A.

Agrometeorological conditions of tuberization in potatoes in the Far East. Trudy Dal'nevost. NIGMI no.16:115-127 '64.

Studying the total evaporation from potato fields in the Maritime Territory. Ibid.:128-140

(MIRA 17:11)

AFANAS'YEV, Pavel Semenovich, kand. tekhn. nauk; YANISHEVSKIY, Aleksey
Fedorovich, inzh.; KHUDYAKOVA, A.V., nauchnyy red.;
LYAL'KIN, I.A., nauchnyy red.; RYCHEK, G.I., red.; TOKER,
A.M., tekhn. red.

[Setting up woodworking machinery] Naladka derevoobrabatyva-
iushchikh stankov. Izd.2., perer. i dop. Moskva, Proftekhiz-
dat, 1962. 439 p. (MIRA 16:4)

(Woodworking machinery)

KHODYAKOVA, E.; TSIVIRKO, G.F.

Photography and cinematography serve nature. Priroda 49
no.11:123 N '60. (MIRA 13:11)

1. Gosudarstvennyy istoricheskiy arkhiv, Leningrad (for
Khodyakova). 2. Leningradskiy Dom rabotnikov prosveshcheniya
(for TSivirko).

(Nature photography)

KHUDYAKOVA, E.

Welcome changes. Obshchestv. pit. no.11:11-12 N '61.

(MIRA 15:2)

1. Glavnyy tekhnolog Upravleniya obshchestvennogo pitaniya
Ministerstva trgovli Latvyskoy SSR.

(Riga—Restaurants, lunchrooms, etc.)

ZNAMENSKIY, Yu., KHUDYAKOVA, E.

Dairy restaurant "Leningrad." Obshchestv.pit. no.1:33 Ja '63.
(Leningrad—Restaurant, lunchrooms, etc.) (MIRA 16:4)

NOVIKOV, Valer'yan Dmitriyevich; KHUDYAKOVA, G., redaktor; DANILINA, A.,
tekhnicheskiy redaktor.

[History of mastering the Soviet Arctic] Iz istorii osvoeniia
Sovetskoi Arktiki. Moskva, Gos.izd-vo polit.lit-ry, 1956. 214 p.
(Arctic regions) (MLRA 9:5)

RATNER, S.I., prof.; FAYN, O.I.; MASHILOV, V.P.; MITROFANOVA, V.G.;
KHUDYAKOVA, G.K.; VIL'SHANSKAYA, F.L., kand. med. nauk (Moskva)

Treatment of nonspecific ulcerous colitis with dried colibac-
terin. Klin. med. 41 no.2:109-115 F'63 (MIRA 17:3)

1. Iz Moskovskoy bol'nitsy imeni S.P. Botkina i Moskovskogo
nauchno-issledovatel'skogo instituta epidemiologii i mikro-
biologii Ministerstva zdravookhraneniya RSFSR.

RATNER, S.I.; KHODYAKOVA, G.K. (Moskva)

Pulmonary form of smallpox. Klin.med. no.4:51-59 '62.

(MIRA 15:5)

1. Iz infektsionnogo otdeleniya (nauchnyy rukovoditel' - prof. S.I. Ratner) i rentgenologicheskogo otdeleniya (nauchnyy rukovoditel' - zasluzhennyy deyatel' nauk prof. S.A. Reynberg) Bol'nitsy imeni S.P. Botkina.

(SMALLPOX)

(LUNGS--DISEASES)

KORYAKIN, V.I.; KHUDYAKOVA, L.A.; GUR'YANOVA, A.A.

Investigating the yield of various wood chemical products in the
pyrolysis of wood impregnated with sulfuric acid, dependent on
the conditions of the process. Sbor. trud. TSNILKHI no.15:3-7 '63.
(MIRA 17:11)

KORYAKIN, V.I.; KHUDYAKOVA, I.A.; FURSOVA, V.V.; RUD', I.A.

Yield of furfural and other wood chemical products in the pyrolysis
of beechwood impregnated with sulfuric acid. *Gidroliz. i lesokhim.*
prom. 17 no.5:15-17 '64. (MIRA 17:10)

1ST AND 2ND ORDERS										3RD AND 4TH ORDERS									
<p>KHODYAROVA L.D.</p> <p>Densities of petroleum products between 0° and 50°. L. D. Khodyarova and P. S. Chistovich. <i>Tras. inst. standartizatsion U. R. S. S. No. 6, 60-91 (in French 92) (1934).</i>—App. and procedure are described in detail. The temp. was maintained within 0.01° and the exptl. error is not over 0.00072. D. of 36 samples of Russian oils ranging from gasoline to residuum and crude oil was measured. Deviations from the straight-line relationship d.-temp. were observed. The expansion coeff. of paraffin-free oils increases with the increase in temp. In the presence of paraffin the coeff. may first show an increase and then a decrease or <i>vice versa</i>. V. A. Kalichevsky</p>																			
<p>ASB-31A METALLURGICAL LITERATURE CLASSIFICATION</p>																			
FROM SYMBOLISM										TO SYMBOLISM									
SYMBOLISM										SYMBOLISM									

KHODYAKOVA L. D.

PROCESSES AND PROPERTIES INDEX

Densities of petroleum products between -20° and 100° , L. D. Khodyakova. *Trav. inst. métrol. standardisation U. R. S. S. No. 6, 93-101 (in French 102) (1934)*; cf. preceding abstr.—Samples of a heavy lubricating-oil distillate, a kerosene and a gasoline from Bibi-Eibat crude oil were investigated. Densities are referred to water at 4° . The expansion coeffs. per degree were:

Temp. range	$-21-10^{\circ}$	$-10-0^{\circ}$	$0-15^{\circ}$	$15-30^{\circ}$
Gasoline	0.00113	0.00107	0.00117	0.00117
Kerosene	0.00088	0.00087	0.00089	0.00090
Avtol "M"	0.00072	0.00072	0.00071	0.00069

Temp. range	$30-35^{\circ}$	$35-55^{\circ}$	$55-80^{\circ}$	$80-100^{\circ}$
Gasoline	0.00116	0.00119	0.00124	—
Kerosene	0.00089	0.00090	0.00092	—
Avtol "M"	0.00069	0.00070	0.00069	0.00073

With the exception of gasoline the exptl. error in d. detns. is 0.00002. Density of gasoline could not be measured better than within 0.0001 because of its volatility. Conclusion: Changes in d. and expansion coeff. are proportional to temp.

V. A. Kalichevsky

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

1300H 2103319V

130000 010 00V 001

130000 010 00V 001

130000 010 00V 001

~~KHODYAKOVA, L.D.~~

Studying low-temperature glass thermometers filled with liquids.
Trudy VNIIM no.4:66-94 '48. (MIRA 11:11)
(Thermometers)

L 19013-65 EBT(1)/EES(5)-2/SHA(L) Feb 63D/ASD(*)-5/AS(mg)-2/ESD/AFNL/ESD(a)/
ESD(gf)/ESD(t)

ACCESSION NRE AP4049047

5/0057/64/034/011/2044/2047

AUTHOR: Khudyakova, L.N.; Guchikova, Ye.K.; Tarasova, L.V.

TITLE: The hard component of the radiation from a pulsed x-ray tube

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.11, 1964, 2044-2047

TOPIC TAGS: x-ray emission, x-ray tube, pulsed radiation, hard photon contribution, high energy electron

ABSTRACT: The radiation from a pulsed x-ray tube of special design was examined and the presence of an ultrahard component was established; the quantum energy of this component considerably exceeded the maximum to be expected on the basis of the applied potential. The design of the x-ray tube is described in more detail elsewhere (K.B. Zelenskiy, I.A. Troshkin and V.A. Tsukerman, PTE 2, 140 (1963)). It consists of a tungsten "needle" anode within and projecting 8 mm beyond a hollow conical cathode which terminates in a cylindrical portion. The electrodes are contained in a 3.5 cm diameter 18 cm long glass tube. The tube is powered by a pulse transformer that delivers 350 kv pulses of 1.5 microsec duration. The breakdown potential of the working gap is approximately 260 kv. The x-rays were investigated by

1/2

L 19013-65

ACCESSION NR: AP4049047

absorption in lead and by means of the Compton recoil tracks in thick nuclear emulsions. The absorption measurements were performed with plastic scintillators and photomultipliers. A complete absorption curve (up to 4 points) was obtained at each pulse. The absorption curves varied considerably from pulse to pulse, and it was found that 30% of the pulses produced photons with energies greater than the 350 kV limit expected on the basis of the potential developed by the pulse transformer. The nuclear emulsions were calibrated with ^{60}Co and ^{137}Cs γ -rays, passing through 2.2 cm of lead. It was established that the maximum x-ray photon energy was greater than 0.6 MeV and less than 1.3 MeV. By calibrating the emulsions with γ -ray sources of known intensities it was found that the yield of ultrashort x-rays was 10^3 to 10^4 photon/pulse. This is to be compared with the total estimated x-ray yield of 10^{11} photon/pulse. The mechanism by which the ultrashort x-rays are produced was not investigated, but several tentative suggestions are offered, based on the behavior of the plasma in the vacuum discharge. Original has: 1 figure.

ASSOCIATION: none

SUBMITTED: 07Feb64

SUB CODE: OF

NR REF ROW: 013

EXCL: 00

OTHER: 001

2/2

KHIL'KIN, A. M. (Moskva, 2-ya Cheremushkinskaya ul., d. 17, korp. 1, kv. 53); KHUDYAKOVA, M. I.

Surgical anatomy of the aortic valve. Grud. khir. no.5:3-7 '61.
(MIRA 15:2)

1. Kafedra operativnoy khirurgii i topograficheskoy anatomii
(zav. - chlen-korrespondent AMN SSSR prof. V. V. Kovanov) I Mos-
kovskogo ordena Lenina meditsinskogo instituta imeni I. M.
Sechenova.

(AORTIC VALVE)

K HUDYAKOVA, N. D.

CH Organic acids in juices of fruits and berries and in wines.
A. I. Koroblev and N. D. Khudyakova (Agr. Inst., Uman),
Vinodolia i Vinogradarstvo S.S.S.R. 15, No. 6, 14-17 (1963).
--A large no. of different fruit and berry juices and corresponding wines were analyzed. In general, juices of the black and red currants are rich in citric acid (20-4 g./l.), while cherries and apples have much malic acid (ches. g. 19.101-21.287, apple 6.7381). The juice of black currant contained the following amts. of acids (in g./l.): malonic acid 0.975, lactic acid 0.197, citric acid 24.107, malic acid 1.572, and succinic acid 0.068. The production of wines from fruits and berries causes a complete disintegration of the malonic acid, a decrease of the citric and malic acids, and an increase of the lactic and succinic acids. B. Markus

KHUDYAKOVA, N.D.

AUTHORS: Remenets, M.F. and Khudyakova, N.D. 21-5-25/26

TITLE: A Study of the Dynamics of Cellulose Decomposition and Atmospheric Nitrogen Fixation by Microorganisms in Lowlands Peats (Izucheniye dinamiki razlozheniya kletchatki i fiksatsii atmosfornogo azota mikroorganizmami na nizinnom torfyanike)

PERIODICAL: Dopovidi Akademii Nauk Ukrains'koi RSR, 1957, Nr 5, pp. 521-524 (USSR)

ABSTRACT: The most widely occurring azotobacter species in the lowland peats of the Ukrainian Poles'ye is Azotobacter agili (Beijerinck) followed by Azt.vinelandi (Lipmann) and Azt.chroococcum (Beijerinck). All the microbe cultures studied are far more abundant in cultivated peats than in uncultivated. The processes of nitrogen fixation and cellulose decomposition take place chiefly in the upper peat horizons. The quantity of the investigated microbe cultures during the autumn months was far greater than in the spring. The most intensive decomposition of cellulose and the greatest quantity of azotobacter was found under sugar beet and potatoes. There is an interrelationship between the development of cellulose decomposing bacteria and azotobacters and the period of plant vegetation. The optimum development of these microbes occurs

Card 1/2

21-5-25/26

A Study of the Dynamics of Cellulose Decomposition and Atmospheric Nitrogen Fixation by Microorganisms in Lowlands Peats

at a pH close to the neutral, but they adapt themselves to a much lower pH-value (5 to 5.3). A still more acid medium of uncultivated peats (pH = 4.5 to 4.7) and the weak aeration and excessive moisture exert a depressive effect on the development of microorganisms in them.

The article contains 1 table and 12 references, 11 of which are Slavic.

ASSOCIATION: Sarny Scientific Research Station for Swamp Reclamation
(Sarnens'ka n.-d. stantsiya po osvoyennyyu bolit)

PRESENTED: By P.A. Vlasyuk, Member of the AN Ukrainian SSR

SUBMITTED: 21 February 1957

AVAILABLE: Library of Congress

Card 2/2

TRESKINSKIY, S.A.; KHUDYAKOVA, N.G.

Physical foundation for clothoidal tracing. Avt. dor. 26 no.5:
18-19 My '63. (MIRA 16:7)

(Roads--Design)

GOLOVATYY, R.N.; OSHCHAPOVSKIY, V.V.; KHUDIAKOVA, N.N.

Qualitative detection of cobalt by means of precipitation
chromatography. Ukr. khim. shur. 24 no.4:491-494 '58.

(MIRA 11:10)

1. L'vovskiy gosudarstvennyy universitet i L'vovskiy politekhnicheskoy institut.

(Cobalt) (Chromatographic analysis)

MOKHNACHEV, I.G.; SERDYUK, L.G.; KHUDYAKOVA, R.G.

Method for a rapid determination of carotene in canned foods.
Kons. i ov. prom. 16 no.11:38-41 N '61. (MIRA 14:11)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.

(Carotene)
(Food, Canned--Analysis)

MOKHNACHEV, I.G.; SERDYUK, L.G.; KHUDYAKOVA, R.G.

Determining carotene content of tomato products. Kons.l ov.prom.
17 no.5:42-43 My '62. (MIRA 15:5)

1. Krasnodarskiy nauchno-issledovatel'skiy institut pishchevoy
promyshlennosti.

(Tomato products)
(Carotene)

KHUDYAKOVA, R. I.; DOMAN, N. G.; KUZIN, A. M.; MANUL' Ya. V.

Photosynthesis

Problem of diversity of primary products of photosynthesis in different species of plants. Dokl. AN SSSR 96 no. 2, 1952.

Monthly List of Russian Sccessions, Library of Congress, December 1952. Unclassified.

BETIST, U.I., inzh.; KHODYAKOVA, R.M., inzh.

"Light streak" in furnace welded pipe seams. Svar. proizv. no.3:
12-14 Mr '64. (MIRA 18:9)

1. GralNVTI.

KHUDYAKOVA, R. YE.

582

Desyar' let na ferme. Rasskaz doyarki
/kolkhoza "krasnyy oktyabr'" ukholmogorakh. Lit.
obraborka N. K. Zhernakova/. Arkhangel'sk, kn. izd.,
1954. 28 s. 20 sm. 5.000 ekz. 35 k. - /54-55592/ p
636.2.083 sr (47.21)

SO: Knizhnaya Letopis, Vol. 1, 1955

KHUDYAKOVA, T. A.
CA

6

Chemistry of Titanium. XIX. Sulfates of quadrivalent titanium. A. V. Pamuklov and T. A. Khudyakova. *Zhur. Obshchei Khim.* (J. Gen. Chem.) 1957, 31, 520 (1959); cf. C.A. 41, 8365d. - Of all the Ti sulfates described in the literature, only $\text{Ti}(\text{OSO}_4)_2 \cdot 2\text{H}_2\text{O}$ could be isolated with certainty from solns. of TiO_2 in H_2SO_4 . Under no circumstances could a salt with a SO_4/TiO_2 greater than 1 be obtained. Expts. were run with freshly pptd. metatitanic acid, precip. by soln. of tech. metatitanic acid in H_2SO_4 ; the commercial product dissolves completely only if the H_2SO_4 is no less than 60%. The product pptd. from such solns. by hydrolysis, and dried at 110°, contains from 62 to 80% TiO_2 , and from 27 to 45% H_2O . It, too, is completely sol. in H_2SO_4 of at least 60%. That TiO_2 is chemically bound by H_2SO_4 , follows from the lowering of the boiling temp. as compared with solns. of H_2SO_4 of the same concn. At a const. ratio $r = \text{H}_2\text{SO}_4/\text{TiO}_2 = 4.3$, the ppt. obtained, by a few hrs. refluxing, from 60-70% H_2SO_4 , consists of long needles of $\text{Ti}(\text{OSO}_4)_2 \cdot 2\text{H}_2\text{O}$. With H_2SO_4 over 50%, the ppt. consists of round grains, analyzing $\text{SO}_4/\text{TiO}_2 < 1.1$, and contg. less H_2O than the dihydrate. At intermediate concns. of H_2SO_4 , 70-75%, needles and round grains are sometimes intermingled. Neither ppt. is sol. in cold or hot H_2O , but they dissolve readily in cold 0.5-1% H_2SO_4 . On heating, decomp. with evolution of SO_3 occurs, in all ppts., between 500 and 600°. At const. concn. of H_2SO_4 , 60%, and variable r , needles of $\text{Ti}(\text{OSO}_4)_2 \cdot 2\text{H}_2\text{O}$ can be crystd. between $r = 3$ and $r = 7$. At $r = 3$, crystn. may begin from a turbid soln., but the residual undissolved TiO_2 dissolves with the progress of the crystn. With $r > 7$, some of the initially forming ppt. is powdery, but, subsequently, the powder goes over into needles, completely at $r = 7$, incompletely at $r = 8$. Decomp. of tech. metatitanic acid with H_2SO_4 (60-85%), and $r = 1.5$ gives the same results as the decomp. of the freshly pptd. product with $r = 4.3$. With the tech. product, H_2SO_4 of 60, 70, and 80% gives, resp., 42, 84, and 75% decomp.; the optimum, 70%, corresponds to crystn. of the needle-shaped $\text{Ti}(\text{OSO}_4)_2 \cdot 2\text{H}_2\text{O}$. At higher concns. of H_2SO_4 , crystn. of the needles can be initiated by inoculation. The granular ppt. formed in too concd. H_2SO_4 (> 70%) goes over into the needle-shaped crystals on suitable diln. N. Thon

1ST AND 2ND CAPSULES		3RD AND 4TH CAPSULES	
PROCEDURES AND PROPERTIES INDEX			
C KHUDYAKOVA, T. A.			
3651			
Solubility of Silica SiO_2 - B_2O_3 Glasses			
N.R. Dertey AND			
<p>T. A. KHUDYAKOVA: <i>J. Applied Chem. (U.S.S.R.)</i>, 23 [8] 793-99 (1950).—The solubility of SiO_2 in $SiO_2 + B_2O_3$ glasses containing 5 to 50% SiO_2 and melted at 600° to 1300°C. showed an increase with temperature except for glass with 30% SiO_2. This glass showed a decrease at 1000° to 1300°, apparently owing to the formation of a chemical compound which is decomposed by water into B_2O_3 and an insoluble silica residue. The low solubility for glass of 20% SiO_2 at 600° (compared with other glasses) may also be caused by the formation of a compound which dissociates at higher temperatures. Confirmation for this view was</p>			
Zhdanov IND. INST., GOR'Kiy			
over			
ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION			
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KHUDYAKOVA, T.A.

USSR/Chemical Technology - Chemical Products and I-10
Their Applications - Silicates. Glass.
Ceramics. Binders.

Abs Jour : Ref Zhur- Khimiya, No 3, 1957, 8960

Author : Dertev, N.K., Khudyakova, T.A. and
Vaganova, V.N.

Inst. : Gorki Polytechnical Institute.

Title : The Effect of Heat Treatment and Stresses in
Glass on the Latter's Surface Chemical
Resistance.

Orig Pub : Tr. Gor'kovsk. politekhn. in-ta, 1955, 11,
No 3, 17-26

Abstract : The effect of heat treatment and of stresses
on the chemical resistance (KhU) of glass
(G) has been investigated as well as the
question of improving the KhU of the latter's.

Card 1/3

USSR/Chemical Technology - Chemical Products and I-10
Their Applications - Silicates. Glass.
Ceramics. Binders.

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, 8960

Specimens of sheet glass and K-3 glass (composition given) were used in the tests. The surface KhU was tested by the mylius iodo-eosin method, the concentration of iodi-eosin Na in the solution being determined with the aid of a FEK-M photoelectric colorimeter. It is shown that the KhU depends to a great extent on the condition of the surface film, heat treatment below 400° having a great effect of the KhU of the G. When G is soaked at temperatures below 400°, a considerable decrease in KhU is observed from which it follows that the cooling rate of G below 400° must be the maximum possible.

Card 2/3

AUTHOR: Khudyakova, T. A. SOV/32-24-10-11/70

TITLE: An Automatic Chrono-Conductometric Method of Analysis for Mixtures of Sulfuric Acid, Acrylic Acid, and Ammonium Bisulfate (Avtomaticheskiy khronokonduktometricheskiy metod analiza smesi sernoy i akrilovoy kislot i bisul'fata ammoniya)

PERIODICAL: Zavodskaya Laboratoriya, 1958, Vol 24, Nr 10, pp 1197-1200 (USSR)

ABSTRACT: The conductometric analysis method suggested by A. K. Kal'ye (Refs 1, 2) has a series of advantages, compared with other analyses of this type. The difference between the method described in the present paper and the one mentioned above is the automatic addition of the titration liquid from a Mariotte container. The analysis is carried out with a special conductometer constructed with the assistance of N. Ye. Pavlov under the application of a self-recording millivoltmeter (Ref 3). A drawing of the plant as well as a description are given which show that a millivoltmeter of the type ~~MS Shch-F-R-354~~ was used. The described method makes possible the determination of not only the sulfuric and acrylic acids, but also of ammonium sulfate. In the

Card 1/2

SOV/32-24-10-11/70

An Automatic Chrono-Conductometric Method of Analysis for Mixtures of Sulfuric Acid, Acrylic Acid, and Ammonium Bisulfate

case of a titration of the mixture which contains all three components the conductometric curve has three fissures. The experimental results obtained (given in tables) show that the titration time of the sulfuric acid and of the ammonium sulfate is changed directly proportionally with the concentration of the latter. The minimum concentration of the acrylic acid which can be determined in this mixture is 0,01 n. Data are given in tables as well as graphic representations. There are 4 figures, 2 tables, and 6 references, 4 of which are Soviet.

ASSOCIATION: Gor'kovskiy politekhnicheskii institut im. A. A. Zhdanova
(Gor'kiy Polytechnical Institute imeni A. A. Zhdanov)

Card 2/2

KHUDYAKOVA, T.A.; NEMTSEVA, L.I.; BALANDINA, M.A.

Chronoconductometric determination of ethylene oxide in the
presence of methacrylic acid and iron salts. Zhur.prikl. khim.
35 no.4:824-827 Ap '62. (MIRA 15:4)

1. Gor'kovskiy politekhnicheskoy institut, kafedra analiticheskoy
khimii.

(Ethylene oxide)

(Conductometric analysis)

S/081/63/000/004/010/051
B193/B180

AUTHORS: Khudyakova, T. A., Nemtseva, L. I., Belousova, Z. S.

TITLE: Automatic time-conductimetric analysis of a mixture of hexamethylenediamine and hexamethyleamine

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 156, abstract 40160 (Tr. po khimii i khim. tekhnol. (Gor'kiy), no. 4, 1961, 772 - 774)

TEXT: An automatic time-conductimetric method of analyzing a mixture of hexamethylenediamine (I) and hexamethyleamine (II) has been developed, the basic principle of which has been described in RZhKhim, 1959, no. 7, 22973. The content of II is determined by conductimetric titration of the mixture with an aqueous solution of HCl in the presence of salicyl aldehyde (III). I forms a compound with III which cannot be titrated by the acid. Titration of the mixture of I and II in the absence of III is used to determine the total content of I and II, the content of I being calculated from the difference between the two titrations. The analyzed sample ~3.5 g in weight is dissolved in water in a 100 ml measuring flask (solution A).

Card 1/2

Automatic time-conductimetric analysis...

S/081/63/000/004/010/051
B193/B180

20 ml ethanol, 3.5 ml III, 10 ml sol. A and 40 ml water were placed in the bath of the conductimeter and titrated time-conductimetrically for 15 min with 0.05 - 0.07 N sol. HCl. The equivalence point was determined from the salient point in the potential (mv) v. time (sec) titration curve, 10 ml sol. A was transferred to a 100 ml measuring flask and water added up to the mark (sol. B). 10 ml sol. B and 40 ml water were placed in the conductimeter bath and titrated for 0.5 min with the same sol. HCl. The error of the determination was $\leq 2.5\%$; the analysis took 30 - 35 min. [Abstracter's note: Complete translation.]

Card 2/2

KHUDYAKOVA, T.A.; VAGANOVA, V.N.

Chronoconductometric method for determining ammonium chloride in an
iron - zinc electrolyte. Trudy po khim.i khim.tekh. no.1:135-139 '63.
(MIRA 17:12)

KHUDYAKOVA, T.A.; AUROV, A.P.; KRYLOVA, V.I.

Chronoconductometric method for the determination of sodium polymethacrylate, its copolymer with methyl methacrylate and for the analysis of mixtures with NaOH. Zhur.anal.khim. 19 no.9:1137-1141 '64.
(MIRA 17:10)

1. Gor'kovskiy politekhnicheskii institut imeni Zhdanova.

KRESHKOV, A.P.; KHUDYAKOVA, T.A.; AUROV, A.P.; ARBATSKIY, A.P.

Chronoconductometric method for determining maleic anhydride in its
copolymer with styrene and sodium styromaleinate. Plast. massy no.7:
51-55 '65. (MIRA 18:7)

KRESHKOV, A.P.; KHUDYAKOVA, T.A.

Chronoconductometric method for determining weak acids.
Zhur. anal. khim. 20 no.5:625-629 '65. (MIRA 18:12)

1. Moskovskiy khimiko-tekhnologicheskii institut imeni D.I.
Mendeleyeva i Gor'kovskiy politekhnicheskii institut imeni
A.A. Zhdanova. Submitted March 27, 1964.

KHUDYAKOVA, T.A.; KRESHKOV, A.P.

Chronoconductometric method of determining weak acid salts.
Zav. lab. 31 no. 12:1427-1430 '65 (MIRA 19:1)

1. Gor'kovskiy politekhnicheskiy institut i Moskovskiy khimiko-
tekhnologicheskiiy institut.

KHODYAKOVA, T.I.; PAVEL'YOVA, Ye.I.; KOZLOV, R.V.

Electroconductometric analysis of a mixture of trichlorosilane
and silicon tetrachloride. Zhur.prikl.khim. 38 no.9:2002-2007
p. 155. (MIRA 18:11)

I. Gor'kovskiy politekhnicheskiy institut imeni Zhdanova.

L 39576-66 EWP(b)/BFF(n)-2/EWF(t)/EWP(b) TOP(c) JD/AD

ACC NR: AP6000683

SOURCE CODE: UR/0080/65/038/009/2002/2007

AUTHOR: Khudyakova, T. A.; Pavol'yeva, Ye. I.; Kozlov, R. V.

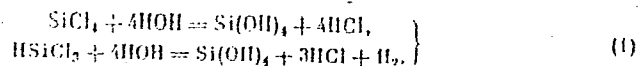
ORG: Gorky Polytechnic Institute im. A. A. Zhdanov (Gor'kovskiy politekhnicheskiy institut)

TITLE: Chronoconductometric analysis of a mixture of chlorosilane and silicon tetrachloride

SOURCE: Zhurnal prikladnoy khimii, v. 38, no. 9, 1965, 2002-2007

TOPIC TAGS: chemical reaction, silane, silicon compound, metal chemical analysis

ABSTRACT: In the case of a mixture of HSiCl_3 and SiCl_4 , the hydrolysis reaction proceeds according to the following scheme:



For the analysis of such a mixture, the article proposes a method based on chronoconductometric titration with hydrochloric acid, accompanied by the formation of sodium acetate during the hydrolysis of HSiCl_3 and SiCl_4 . Sodium acetate reacts with hydrochloric acid in equivalent

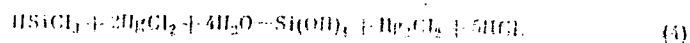
Card 1/2

UDC: 543.257.5+546.281

L 39576-66

ACC NR: AP6000683

proportions. The overall reaction used for purposes of analysis is the following:



As a result of the reaction, from one gram mole of HSiCl_3 there are formed 5 gram moles of hydrochloric acid. In the overall reaction, 1 gram mole of SiCl_4 gives 4 gram moles of hydrochloric acid. By determining the amount of hydrochloric acid formed in the overall reaction, it is possible to determine the composition of the mixture from the amount of excess hydrochloric acid. It is claimed that the proposed method of analysis can be used for the analysis of colored and turbid industrial mixtures of trichlorosilane and silicon tetrachloride. Orig. art. has: 4 formulas, 1 figure, and 3 tables.

SUB CODE: 07/ SUBM DATE: 05Apr63/ ORIG REF: 016/ OTH REF: 007

Cord 2/2/5

Khudyakova, V.A.

KULAKOVA, R.V., kandidat tekhnicheskikh nauk; MIRZOYEV, A.G., inzhener;
UKSTIN, E.F., inzhener; KHUDYAKOVA, V.A., inzhener; MAKAROVA, L.I.,
inzhener.

Electric strength of main cables having paper cord-styroflex
insulation. Vest. elektroprom, 28 no.4:31-35 Ap '57. (MIRA 10:6)

1. Nauchno-issledovatel'skiy institut kabel'noy promyshlennosti.
(Electric cables)

KHUDYAKOVA, Ye.

Ancient wisdom serves 20th century humanity. Nauka i zhizn' 30 n
no.4:66-70 Ap '63. (MIRA 16:7)

(MEDICINE, ARABIC)
(RASULEV, KHADZHA RASMLEVICH)

KHODYAKOVA, Ye.N., starshaya meditsinskaya sestra (Arkhangel'sk)

Preparing a patient for abortion and postoperative care.

Med. sestra 20 no. 12:50-51 D '61.

(MIRA 15:3)

(ABORTION)

(POSTOPERATIVE CARE)

KORENEVSKAYA, V.Ye.; YAKUSHEVSKAYA, I.V.; KAPLUNOVA, L.S.; KHUDYAKOVA, Yu.A.

Soil improvement characteristics of the Palace of the Soviets Park.
Vest. Mosk. un. Ser. 6: Biol., pochv. 18 no.1:45-56 Ja-F '63.

(MIRA 16:12)

1. Kafedra fiziki i melioratsii pochv, kafedra pochvovedeniya,
kafedra agrokhimii, i kafedra biologii pochv. Moskovskogo universiteta.

KHUDYAKOVA, Yu.A.; ZUYEVA, I.N.

Absorption of activity of gibberellin in soils. Trudy Inst.
mikrobiol. no.11:335-340 '61 (MIRA 16:11)

1. Kafedra biologii pochv Moskovskogo gosudarstvennogo uni-
versiteta imeni Lomonosova.

*

KHUDYAKOVA, Yu. A.

"Comparative Characteristic of the Cultures of Azotobacter." Thesis for Degree of Cand. Biological Sci. Sub 29 Dec 50, Inst of Microbiology, Acad Sci USSR

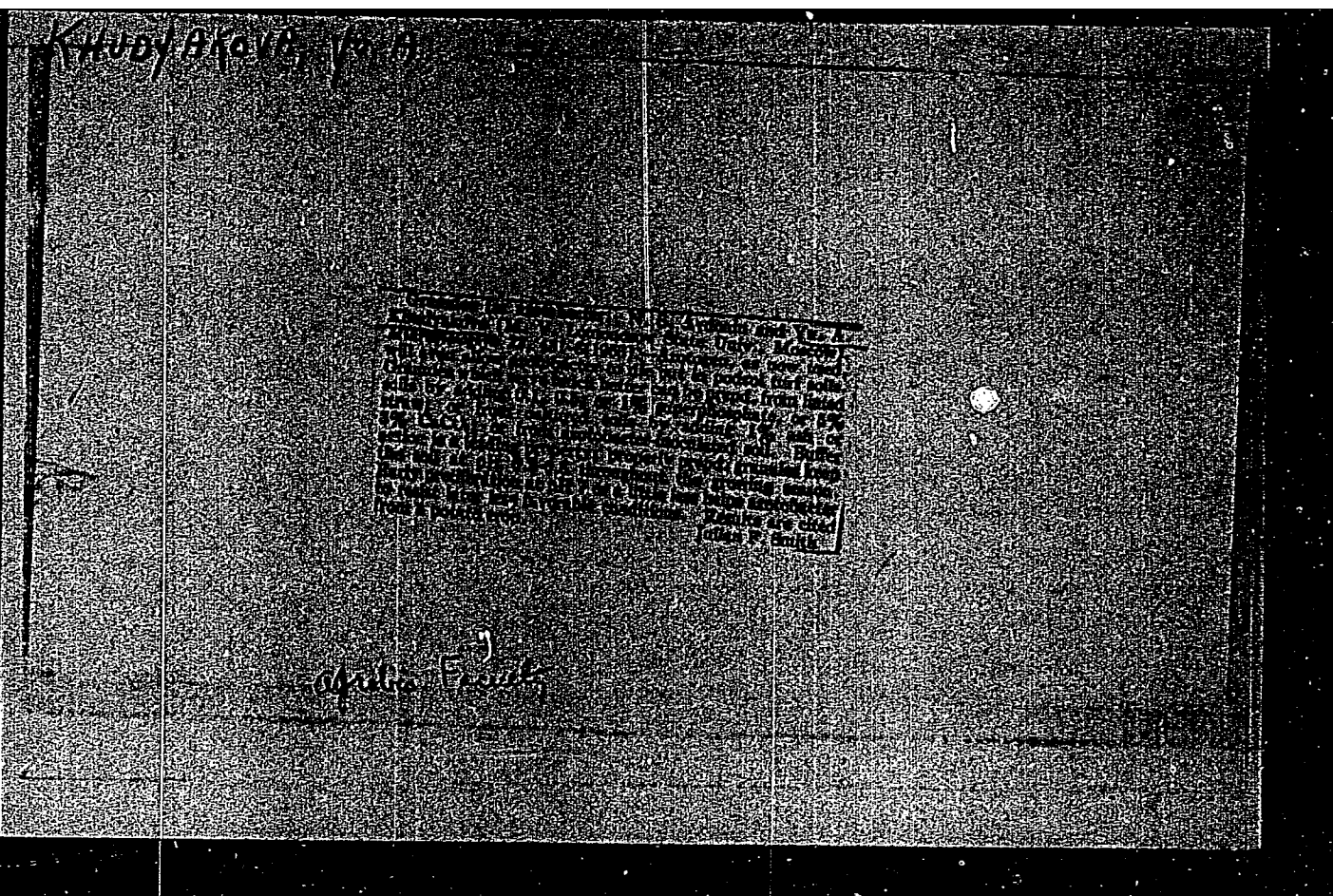
Summary 71, 4 Sept 52. Dissertations Presented for Degrees in Sci. and Engi. in Moscow in 1950. From Vechernyaya Moskva. Jan-Dec 1950.

KHUDYAKOVA, Yu. A.

KRASIL'NIKOV, N.A.; KHUDYAKOVA, Yu.A.; BIRYUZOVA, V.P.

~~Flagellar apparatus in Azotobacter~~ in electron microscopy. Trudy
Inst. mikrobiol. no.2:44-50 '52. (MLRA 5:12)

(AZOTOBACTER,
flagella, electron microscopy)
(MICROSCOPY, ELECTRON,
of Azotobacter flagella)



KHUDYAKOVA, Z.A.; DOLGOV, A.I.

Grinding devices for chain mortising machines. Der.prom. 7 no.9:29-30
S '58. (MIRA 11:11)

(Woodworking machinery)

BOGUSLAVSKIY, I.S., inzh.; KHUDYAKOVA, Z.M., inzh.

Consideration of steel magnetization characteristics
in the calculation of turbogenerators using digital
computers. Elektrotehnika 36 no.12:5-6 D '65.

(MIRA 19:1)

SHATSKAYA, Eleonora Petrovna; KHODYAKOVSKIY, Yu.K., inzh., retsenzent;
TSARENKO, A.P., inzh., red.; MEDVEDEVA, M.A., tekhn. red.

[Practices of the over-all mechanization of the servicing of
refrigerator cars] Opyt kompleksnoi mekhanizatsii ekipirovki
vagonov-lednikov. Moskva, Vses. izdatel'sko-poligr. ob"edinenie
M-va putei soobshcheniia, 1961. 29 p. (MIRA 14:6)
(Refrigerator cars)

VINOKUROV, A.D., inzh.; DYUBKO, A.P., inzh.; LEVSHIN, B.S., inzh.;
L'VITSIN, N.F., inzh.; RESHETIN, I.S., inzh.; KHUDYAKOVSKIY,
Yu.K., inzh.; SHAPOVALENKO, M.M., inzh.; SHATSKAYA, E.P.,
inzh.; MATALASOV, S.F., kand. tekhn.nauk, retsenzent;
SHISHLYKOV, Ye.S., inzh., red.; KHITROVA, N.A., tekhn. red.

[Manual on the transportation of perishable goods] Spravochnik po perevozke skoroprotiashchikhsia Грузов. [By] A.D. Vinokurov i dr. Moskva, Transzheldorizdat, 1963. 323 p.

(Railroads--Freight) (Refrigerator cars) (MIRA 16:10)

KHODYASHOV, D.

We build children's institutions ourselves. Sov. profsoiuzy 7
no. 8:31-32 Ap '59. (MIRA 12:7)

1. Predsedatel' zavkoma Kaluzhskogo zavoda avtomotoelektrooborudovani-
ya.
(Kaluga--Schoolhouses)

S/020/63/148/001/006/032
B112/B180

AUTHOR: Khudyayev, S. I.

TITLE: Solvability criteria of the Dirichlet problem for elliptic equations

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 148, no. 1, 1963, 44-46

TEXT: For a quasilinear elliptic equation

$$L(u) = \sum_{i,j} a_{ij}(x,u) u_{x_i} u_{x_j} + \sum_i a_i(x,u, u_{x_k}) u_{x_i} + a(x,u) = 0 \quad (1)$$

which is defined in a bounded domain G with the boundary S and which satisfies the boundary condition

$$u|_S = \varphi(x), \quad (2)$$

the following theorem is derived: Let the following propositions be fulfilled: (A) There are a function $v_1(x) \in C^{2+\nu}(G)$ ($\nu > 0$) and a function $v_2(x) \in C^2(G)$ such that $L(v_2) \leq 0 \leq L(v_1)$ in G ,

Card 1/3

Solvability criteria of the ...

S/020/63/148/001/006/032
B112/B180

$L(v_1) = f_1(x) \in C^{1+\nu}(G)$, $v_1(x) \leq v_2(x)$ in G , $v_1|_S \leq \varphi(x) \leq v_2|_S$.

(B) The condition of ellipticity is uniformly fulfilled in the domain G_1 : $\{x \in G, v_1 \leq u \leq v_2\}$. (C) $G \in A^{2+\nu}$, $\varphi(x) \in C^{2+\nu}(S)$, $a_{ij}(x, u) \in C^{2+\nu}(G_1)$,

$a(x, u) \in C^{1+\nu}(G_1)$, and $a_i(x, u, p_1, \dots, p_n) \in C^{1+\nu}$ in any compact part of the domain G_2 : $\{(x, u) \in G_1, -\infty < p_k < +\infty\}$. (D) For $(x, u) \in G_1$ there is such an $A > 0$ that

$$|a_i| + \sum_k \left| \frac{\partial a_i}{\partial x_k} \right| + \left| \frac{\partial a_i}{\partial u} \right| + \left(\sum_k \left| \frac{\partial a_i}{\partial p_k} \right| \right) (1 + \sum_k |p_k|) \leq A (1 + \sum_k |p_k|).$$

Under these assumptions, there exists at least one solution $v(x) \in C^{2+\alpha}(G)$, ($\alpha > \nu$) to the problem (1), (2), which fulfills the inequality $v_1(x) \leq v(x) \leq v_2(x)$.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

Card 2/3

Solvability criteria of the ...

S/020/63/148/001/006/032
B112/B180

PRESENTED: July 4, 1962, by I. G. Petrovskiy, Academician

SUBMITTED: June 30, 1962

Card 3/3

KHUDYAYEV, S. I.

"Boundary problems for the steady equation of heat conduction with sources depending on temperature."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

Inst of Chemical Physics, AS USSR.

ACCESSION NR: AP4041201

S/0207/64/000/003/0118/0125

AUTHORS: Barzy*kin, V. V. (Moscow); Gontkovskaya, V. T. (Moscow); Merzhanov, A. G. (Moscow); Khudyayev, S. I. (Moscow)

TITLE: Nonstationary theory of thermal explosion

SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 3, 1964, 118-125

TOPIC TAGS: thermal explosion, heat transfer, Newtonian heat exchange, thermophysics, approximate formula

ABSTRACT: The authors use an electronic computer to analyze and solve a system of partial differential equations for thermal explosion for a reaction of zeroth and first order with conductive heat transmission in the reaction zone and Newtonian heat exchange on the boundary. They analyze

$$\text{and } \frac{\partial \eta}{\partial \tau} = \gamma \varphi(\eta) \exp \frac{\theta}{1 + \beta \theta}$$

$$\frac{\partial \theta}{\partial \tau} = \varphi(\eta) \exp \frac{\theta}{1 + \beta \theta} + \frac{1}{\delta} \left(\frac{\partial^2 \theta}{\partial \xi^2} + \frac{\pi}{\xi} \frac{\partial \theta}{\partial \xi} \right) \quad (1)$$

$$0 = \frac{E}{RT_0} (T - T_0), \quad \tau = \frac{QE k_0}{c \rho RT_0} \exp \left(-\frac{E}{RT_0} \right), \quad \xi = \frac{x}{r}$$

$$\delta = \frac{QE r^2 k_0}{\lambda RT_0} \exp \left(-\frac{E}{RT_0} \right), \quad \gamma = \frac{c \rho RT_0}{QB}, \quad \beta = \frac{RT_0}{E} \quad (2)$$

Card 1/2

ACCESSION NR: AP4041201

where θ is heating, τ is time, ξ is a coordinate, δ is the criterion of Grank-Kamenetskiy, $n = 0, 1$ and 2 respectively for plane-parallel, cylindrical, and spherical containers, η is the depth of transformation. The dimensionless variables are: $T(x, t)$ - temperature in the reaction region, T_0 - temperature of the ambient medium, Q - thermal effect of the reaction, k_0 - pre-exponent, E - activation energy, λ - coefficient of heat conductivity, c - specific thermal capacity, ρ - density, R - universal gas constant, r - radius of the container (for plane-parallel - half of the thickness). The authors refine the determination of the basic characteristics of thermal explosion. They present the results in the form of approximate formulas relating the characteristics of thermal explosion with all the parameters of the problem in a wide range of variation. A criterion is given for applicability of the equation averaged over the region for computing the period of induction in the case of conductive heat transmission in the reaction region, and a method for averaging the system of equations for thermal explosion is proposed. Orig. art. has: 5 figures, 6 tables, and 9 formulas.

ASSOCIATION: none

SUBMITTED: 23Jan64

SUB CODE: TD
Card 2/2

NO REF SOV: 008

ENCL: 00

OTHER: 005

ACCESSION NR: AP4012961

S/0020/64/154/004/0787/0790

AUTHOR: Khudyayev, S. I.

TITLE: Boundary-value problems for some quasi-linear elliptical equations

SOURCE: AN SSSR. Doklady*, v. 154, no. 4, 1964, 787-790

TOPIC TAGS: boundary value problem, elliptical equation, quasi linear elliptical equation, Dirichlet problem, mathematical analysis, Neumann problem, Neumann function, Bessel function, Bessel differential equation, explosion theory, thermal explosion theory

ABSTRACT: Boundary-value problems (Dirichlet and Neumann) used in stationary thermal explosion theory were analyzed. The problems of solubility, the qualitative behavior of the solutions in relation to the basic parameters, and the problems of a local uniqueness and permanence of the solutions with respect to "small disturbances" are discussed. The criterion for the solubility of the Dirichlet problem was established by M. Nagumo (Osaka Math. Journ. 6, (1954), 207) and Khudyayev (DAN, 148, no. 1 (1963), 44). A similar criterion is established in this work for the Neumann problem. Suppose that the equation

Card 1/3

ACCESSION NR: AP4012961

$$L(u) \equiv \sum_{ij} a_{ij}(x) \frac{\partial^2 u}{\partial x_i \partial x_j} + \sum_i a_i(x) \frac{\partial u}{\partial x_i} + a(x, u) = 0 \quad (1)$$

is given in a bounded domain G of an n -dimensional space, and one of the following boundary conditions is given on the boundary S

$$M(u) \equiv \frac{du}{dt_x} + \sigma(x) u = \varphi(x); \quad (2)$$

$$u = f(x); \quad (3)$$

Five theorems are then proved. These theorems serve as the basic tools for studying the boundary-value problems. The problems are examined in a more general case than is encountered in the thermal explosion theory. "In conclusion, the author thanks A. I. Vol'pert for his attention to this work and helpful hints." Orig. art. has: 11 formulas.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

Card 2/3

KHUDYAYEV, S.I. (Moskva)

Time characteristics of a thermal explosion in self-accelerating
reactions. Nauch.-tekhn. probl. gor. i vzryva no.1:70-75 '65.
(MIRA 18:9)

L 63803-55

ACCESSION NR: AF3018086

01/0020/65/163/001/0133/0136

AUTHOR: Bostandzhiyan, S. A.; Merdjanov, A. G.; Khudayev, S. I.

TITLE: Hydrodynamic thermal explosion

SOURCE: AN SSSR, Doklady, v. 163, no. 1, 1965, 132-136

TOPIC TAGS: hydrodynamic thermal explosion, exothermic reaction, thermal explosion, chemically inert fluid, viscous fluid, laminar flow, nonlinear temperature dependence, energy dissipation, nonlinear heat source

ABSTRACT: In the presence of an exothermic chemical reaction in a system there may arise conditions in which temperature progressively increases until the so-called thermal explosion takes place. By analogy with the above, the author shows that an effect similar to thermal explosion may take place during the flow of a chemically inert viscous fluid. This is illustrated with an elementary example: the stationary axially symmetric laminar flow of a viscous incompressible fluid of fixed density in an infinitely long round tube under the action of a fixed pressure gradient. The system of equations of motion and heat conduction, on taking into account energy dissipation, is presented and, for the particular case

Card 1/3

L 63803-55

ACCESSION NR: AF5018086

of fluids with a strong temperature dependence of viscosity, reduced to the equation

$$\frac{d\theta}{dx} + \frac{\theta}{x} - \frac{1}{2} \frac{d\theta}{dx} = 0$$

which is identical with the equation of the stationary theory of thermal explosion (see, e.g. Frank-Kamenetskii, D.A. Zhurav, 13, no. 6, 738, 1939). Thus many of the inferences of this theory may be applied to the case considered here. Proceeding from this premise, the author derives formulas for the calculation of critical conditions of the hydrodynamic thermal "explosion" in the presence of Re numbers at which the flow is laminar. This is illustrated by the calculation of such critical conditions for glycerin at $Re = 500$. The differences between thermal "explosion" of chemical and of hydrodynamic origin are defined. Thus, during the flow of a viscous fluid, the liberation of heat ultimately corresponds to a zero-order "reaction" and the so-called "burnout" is absent. Furthermore, the maximum intensity of chemical sources of heat is present in the center of the system whereas for mechanical sources it is present near the surface. As a result, the stationary temperature profile in the hydrodynamic problem is flatter in the central layers and steeper in the surface layers. The overall findings thus indicate that in the case of a strong (nonlinear) temperature dependence of viscosity owing to energy

Card 2/3

63883-43

ACCESSION NR: AF5018086

dissipation there may exist critical conditions of the thermal regime of fluid flow. Such conditions characterize many thermal problems with nonlinear heat sources (thermal breakdown of dielectrics, thermal explosion, etc.). Orig. art. has: 2 figures, 1 table and 14 formulas.

ASSOCIATION: Fizikal'nyi Institut Khimicheskoy Fiziki Akademii nauk SSSR (Affiliate of the Institute of Chemical Physics, Academy of Sciences, USSR)

SUBMITTED: 07 Dec 64

ENCL: 00

SUB CODE: ME, TD

NO REF SOV: 000

OTHER: 000

Card

3/3

L 8077-66 EWT(1)/EWP(m)/EWT(m)/EPG(c)/T RPL WW/JW/WE
 ACC NR: AP5028028 SOURCE CODE: UR/0405/65/000/001/0070/0075
 AUTHOR: ^{44, 55}Khudyayev, B. L. (Moscow) 61
59
B
 ORG: None
 TITLE: Time characteristics of thermal explosions of self-accelerating reactions
 SOURCE: Nauchno-tekhnicheskiye problemy goreniya i vzryva, no. 1, 1965, 70-75
 TOPIC TAGS: thermal explosion, ¹¹combustion kinetics, ^{11, 44}combustion mechanism, heat of explosion, heat of reaction ^{11 55}

ABSTRACT: The basic characteristics of the thermal explosions of self-accelerating reactions were evaluated elsewhere on the basis of the quasi-stationary theory using the thermal explosion equations in the absence of temperature distribution within the reaction volume. In problems with Newtonian heat exchange such a treatment corresponds to small values of the Biot number (B). However, in spite of the simplicity of that system of equations, the time characteristics of the thermal explosion (the induction period beyond the self-ignition limit and the time needed for the attainment of the maximum temperature beyond this limit) appeared in the form of nonelementary quadratures which make their utilization difficult. The present paper investigates, within the framework of the quasi-stationary theory, the cases of large B values and derives for a cylindrical region analytic expressions which describe with sufficient accuracy the dependence of the time characteristics on the essential parameters.

Card 1/2

L 9275-66 EWT(1)/EWP(m)/ETC/EPF(n)-2/EWG(m)/EWA(d)/ETC(m)/EWA(1) NW
 ACC NR: AP5027270 SOURCE CODE: UR/0207/65/000/005/0045/0050
 44, 55 44, 55 44, 55
 AUTHORS: Bostandzhiyan, S. A. (Moscow); Merzhanov, A. G. (Moscow); Khudyayev, S. I. (Moscow)
 ORG: none 83
 TITLE: Some problems on nonisothermal steady flow of a viscous fluid
 SOURCE: Zhurnal prikladnoy mekhaniki i tekhnicheskoy fiziki, no. 5, 1965, 45-50
 TOPIC TAGS: lubrication, liquid flow, lubricant viscosity, flow rate, flow temperature measurement, fluid mechanics, heat transfer
 9m 21, 44, 55
 ABSTRACT: Three problems of unforced flows are studied: flow between two parallel plates, flow in an annular space between two infinite cylinders (axial flow), and flow between two rotating cylinders with account of energy dissipation and the variation of viscosity with temperature given in the Reynolds' equation

$$\mu = \mu_0 \exp(-\beta T),$$

 Two types of boundary conditions are considered: a) on both surfaces the constant (and, in the general case, unequal) temperatures are given; and b) the constant temperature on one surface is given, and heat exchange with the surrounding medium occurs through the other. The case of flow between two parallel plates (given simply by $y = h$ and $y = -h$), one of which moves with a constant velocity V in the positive x - direction,
 Card 1/2 2

L 9275-66

ACC NR: AP5027270

is described by the system

$$\frac{d}{d\eta} \left(e^{-\theta} \frac{dv}{d\eta} \right) = 0, \quad \frac{d^2\theta}{d\eta^2} + k e^{-\theta} \left(\frac{dv}{d\eta} \right)^2 = 0,$$

where dimensionless parameters are given as

$$v = \frac{v_x}{V}, \quad \theta = \beta(T - T_1), \quad \eta = \frac{y}{h}, \quad k = \frac{\beta \mu_0 V^2}{\lambda J} \exp(-\beta T_1),$$

and boundary conditions as

$$v = 1, \theta = 0 \text{ for } \eta = 1, \quad v = 0, \theta = \theta_0 \text{ for } \eta = -1, \quad \theta_0 = \beta(T_0 - T_1).$$

J denotes the mechanical equivalent of heat, and λ is the fluid's coefficient of heat flow, and $T_0 > T_1$ (surface temperatures). An expression for velocity as a function of η and three constants of integration are determined from a transcendental system based on boundary conditions, and the Couette problem with isothermy is solved. The pattern of solution of the two remaining problems is analogous to that of the first, after account is made of the different flow and geometry conditions as expressed in the equations of motion and heat flow. Some special cases such as the case of equal cylinder temperatures and the insulation of one cylinder are discussed. A means of computing the torsional moment due to friction is given for the flow between two coaxial cylinders. Orig. art. has: 38 equations.

SUB CODE: 20/ SUBM DATE: 04Jan65/ ORIG REF: 010/ OTH REF: 002

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Card 2/2

L 06232-67 EWT(m) WW/JW/WE

ACC NR: AP6030658

SOURCE CODE: UR/0020/66/169/006/1366/1369

AUTHOR: Barzykin, V. V.; Khudyayev, S. I.

ORG: none

TITLE: Problem of critical ignition conditions with heat losses

SOURCE: AN SSSR. Doklady, v. 169, no. 6, 1966, 1366-1369

TOPIC TAGS: ignition, heat loss, heat coefficient

ABSTRACT: The authors examine the problem of critical ignition conditions of a semi-infinite cylinder with the constant temperature T_0 on the end, with Newtonian heat transfer from the side surface, characterized by the heat loss coefficient α at an ambient temperature of $T_a < T_0$. An equality is derived which with a practical allowable error can be considered as the critical ignition condition for any Bi which is a function of the distance from a certain fixed axis in the cylinder to the side surface. Two solutions are given--for plus and minus signs of solvability conditions. When $\delta = \delta_{crit}$, both solutions merge. A graphic form of these solutions is also given.

Equations are written for a circular cross section of a cylinder, but a two-dimensional surface can also be used. The authors thank A. G. Merzhanov for his valuable advice. Presented by Academician V. N. Kondrat'yev on 27 November 1965. Orig. art. has: 2 figures, 13 formulas.

SUB CODE: 20/ SUBM DATE: none/ ORIG REF: 005

Card 1/1 UDC: 536.46